

## CHAPTER 12

PLUMBING<sup>1</sup>§ 12-1 Title and Scope

This chapter shall be known as the Vienna Plumbing Code, and may be so cited.

§ 12-2 Adoption of County Code.

There is hereby adopted by the Town Council of Vienna, Virginia for the purpose of regulating the installation, alteration and repair of plumbing facilities, including licensing, permits, penalties and fees, that certain Plumbing Code known as the Fairfax County Plumbing Code, adopted by Fairfax Board of Supervisors on Monday, August 6, 1973, which includes the adoption of the BOCA Basic Plumbing Code, including standards and amendments as adopted by the Virginia State Board of Housing as part of the Virginia Uniform Statewide Building Code. (Virginia State Law Chapter 829, Section 36-100 of the Acts of The Virginia General Assembly of 1972.) Not less than five copies of this Code have been and are now on file in the office of the Town Clerk in the Vienna Town Hall and shall be available for inspection between the hours of 8:15 A.M. and 4:45 P.M., Monday through Friday inclusive, except holidays, and the said Fairfax BOCA Basic Plumbing Code is hereby adopted and incorporated herein as fully as if set out in length herein. From the date this chapter becomes effective, its provisions shall be controlling as to all matters contained therein.

§ 12-3 Water Shortage Control Plan. (Effective May 1, 1977)

(a) Definitions. For the purpose of this section the following terms, phrases, words, and their derivations shall have the meaning given herein. When not inconsistent with the context, words used in the present tense include the future; words in the plural include the singular; and words in the singular include the plural. The word "shall" is always mandatory and not merely directory.

- (1) "Jurisdiction" is the Town of Vienna.
- (2) "Person" is any person, firm, partnership, association, corporation, company or organization of any kind.
- (3) "Water" is water taken from any public water supply or distribution system within the boundaries of the jurisdiction.
- (4) "Water Use Administrator" is the Town Manager or his designee authorized to implement this ordinance.

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<sup>1</sup> For state law authorizing Town to regulate plumbing and sewer connections, see Code of Va.. §§ 32-61, 32-407. As to buildings, see Ch.5 of this Code. As to sewers and sewage disposal, see Ch. 14. As to subdivisions, see Ch. 17.



(b) Restriction of Water Use.

At such time as the Water Use Administrator is notified by the City of Falls Church that the "Emergency" stage of its Emergency Plan has been declared, and after appropriate legal notice has been given to the general public, and after sustained efforts to secure dissemination of the fact of the emergency via public service announcements on radio, television and in newspapers, the Water Use Administrator is authorized to implement this section by ordering the restricted use or absolute curtailment of use of water for certain nonessential purposes including, but not limited to the following:

- (1) The use of hoses, sprinklers or other means for sprinkling or watering of shrubbery, trees, lawns, grass, plants, vines, gardens, vegetables, flowers, or any other vegetation.
- (2) The use of water for washing automobiles, trucks, trailers, trailer-houses, or any other type of mobile equipment.
- (3) The washing of streets, driveways, parking lots, service station aprons, office buildings, exterior of homes, sidewalks, apartments, or other outdoor surfaces.
- (4) The operation of any ornamental fountain, except for self-cycling fountains, or other structures making a similar use of water.
- (5) The use of water for filling swimming and wading pools.
- (6) The operation of any water-cooled comfort air-conditioning which does not have water conserving equipment.

The Water Use Administrator shall notify the City of Falls Church of any and all such actions.

(c) Penalties.

Any person violating any provision of this section or Order of the Water Use Administrator implementing this section, shall, upon conviction, be subject to pay a fine not exceeding \$250.00, or by imprisonment in jail for a period of not exceeding thirty (30) days, or by both such fine and imprisonment in jail for a period of not exceeding thirty (30) days, or by both such fine and imprisonment.

(d) Appeals.

Whenever the Water Use Administrator shall issue an order directing restriction or curtailment of the use of water as provided herein, the person aggrieved shall have the right to appeal the decision of the Water Use Administrator to the Town Council. The Town Council may

appoint a temporary Board of Appeal consisting of members of the Council and other

appropriate parties to act in its place on this matter. The Council or Board of Appeal shall grant such person a reasonable opportunity to present in writing, or at the option of the Council or Board of Appeal in open hearing, his arguments against such decision of the Water Use Administrator.

The Council or Board of Appeals shall consider such arguments and pertinent facts and its decision with respect to such appeal shall be final.

(e) Exception to Maintain Sanitation.

The Water Use Administrator, upon the recommendation of the County Health Officer, or upon its own recognizance, shall have the authority to permit a reasonable use of water in any case necessary to maintain adequate health and sanitation standards.

(f) Exceptions for Business Necessary to Public Welfare.

(1) The provisions of this Section shall not apply to any business or industry which shall be declared by resolution of the Town Council to be specifically excepted therefrom as necessary for the public health, safety and welfare.

(2) Business and industries processing animal, vegetable and mineral matter for food or human consumption purposes shall be regulated in the following manner:

The Water Use Administrator, when so ordered by resolution of the Town Council shall hold a public hearing to determine the amount of water to be used based upon the amount needed during normal years in the particular business and the severity and period of the existing drought conditions.

(3) The Department of Public Works shall have available and furnish all records necessary to determine the usages of water restricted by the section.

(g) Separability.

In the event that any provision of this ordinance or any portion thereof, any paragraph, sentence, or word be declared by a court of competent jurisdiction to be invalid, such decision shall not affect the validity of the remainder hereof as a whole or part thereof other than the part declared to be invalid.

§ 12-4 Water Conservation. (In accordance with Principle #4 BOCA Basic Plumbing Code.)  
(Eff. 5-1-77)

(a) In all new construction and in all replacement of fixtures, only fixtures not

exceeding the following flow rates and/or water usage shall be installed. These rates are based on a pressure at the fixture of 40 to 50 psi.

Water closets, tank type	3.5 gal. per flush
Water closets, flushometer type	3.5 gal. per flush
Urinals, tank type	3.0 gal. per flush
Urinals, flushometer type	3.0 gal. per flush
Shower heads	3.0 gal. per minute
Lavatory, sink faucets	4.0 gal. per minute

(b) Lavatories for Public Use. Faucets of lavatories located in rest rooms intended for public use shall be of the metering, or self-closing type.

(c) Car Wash Installation. Car wash installations shall be equipped with an approved water recycling system. This clause shall be retroactive and all existing car wash installations shall be equipped with such recycling devices by not later than one year after the effective date of this section.

(d) Coin-Operated Car Washes or Similar Devices. No coin-operated car wash may be permitted to be installed and used until plans have been submitted to and approved by the administrative authority. The plans must show the method of connection to an approved sanitary system, disposal of rain subsurface water and the protection of the potable water system.

(e) Continuous Flow Equipment. Any water connected device or appliance requiring a continuous flow of 5 gal. per minute or more and not previously listed in this section shall be equipped with an approved water recycling system. (Amend. 1-17-77)

#### § 12-5 Public Water Supply Agency Data (New 2-25-80)

Any person contemplating the construction of a water supply system shall, at the time of submitting subdivision plans, profiles and specifications, agree by written contract approved by the appropriate public water supply agency that, upon completion of the construction of such water system and the approval and acceptance thereof by the proper official, the water system so constructed shall become the property of the appropriate public water supply agency.

(A) All water mains, their sizes, valves and fire hydrants shall be shown:

(1) In subdivision streets on tangent sections, the water main shall be located eight feet north or east of the street centerline, and the gas main shall be located eight feet south or west of the centerline.

(2) On loop streets the water main shall be located eight feet north or east of the predominate centerline of the street. The gas main shall be located eight feet south or west of the predominate centerline of the street. The water and gas mains shall then continue on the same side of the centerline as determined above for their entire lengths of the streets.





(3) Due to the complexity of design of townhouse streets, it is not feasible to specify the side of the street that the water line will be located. Designers of townhouse sites shall confer with the Public Water Supply Agency and the Washington Gas Light Company. They will assist the designers at this stage in effecting a satisfactory location for water and gas mains and eliminating the need for revisions to the finished drawings for the development.

(4) Water service cut-offs shall be located in the utility strip between the curb and gutter and sidewalk unless otherwise permitted by the Director. The water service line shall be constructed into the lot prior to the placing of the concrete sidewalk.

(5) Dry water mains shall be shown on the plans. House and other building connections must be stubbed to the property line before the street paving section is constructed.

(B) Guideline Criteria:

(1) All water main construction shall comply with the requirements of the standard specifications and plans of the Public Water Supply Agency serving the location.

(2) All water mains shall have a minimum cover of four feet unless otherwise designated.

(3) The developer shall request inspection by the Public Water Supply Agency three days prior to commencing construction of any water main.

(4) No underground electric, telephone, television cables, gas, chilled water lines or other underground utilities shall be installed within the public water supply easement parallel to the proposed water main. Plans and profiles of all utility crossings of water mains within the easements shall be submitted to the Public Water Supply Agency for approval prior to construction.

(5) Any relocation of existing water main due to development shall be provided for by the developer.

(6) No water main valves are to be closed prior to notification of the appropriate water supply agency.

(7) Water mains shall not be installed on site until easements are recorded and the developer has furnished proper forms for water main installation.

(8) All water mains 3 inches through 12 inches shall be Class 52, Ductile Iron

Water Main unless otherwise designated.

(9) All hydrant, water service, fire line and stub-out valves shall be strapped. Swivel fittings optional in lieu of strapping.

(10) The developer shall notify the Public Water Supply Agency prior to the installation of interior plumbing to determine the location of the water meter and any prewiring for remote register.

(11) When the property is located in areas where the pressure is less than 30 p.s.i., booster pumps will be required to provide adequate pressure.

(12) The developer shall make provision for discharge of water as required by the Public Water Supply Agency for water meter repairs and testing with proper arrangements for erosion and sediment control during discharge.

(13) The working pressure shall be shown on the plans. In accordance with the Fairfax County Plumbing Code, a pressure regulating valve must be installed by the property owner in the building plumbing system where the working pressure exceeds 80 p.s.i. in order to eliminate water hammer and unnecessary wastage of water.

(14) The approximate location of curb stops shall be shown on the plans by the symbol 0.

(15) The developer agrees to assume complete responsibility and all costs for the installation of the mains and appurtenances and for any adjustments in alignment and grade, location, repairs and maintenance which may be required prior to finish grading and surfacing of streets and/or easements and final acceptance of the facilities. Final acceptance will not be considered until after the streets have been surfaced or the easements finally graded.

(16) Corrosion prevention and control measures shall be used to protect water mains when a water main crosses another buried utility line.

(17) Prior to any water main installation all required sanitary, including laterals, and storm sewers must be installed, their ditches compacted for full depth according to current requirements, the sanitary sewer accepted for service by Fairfax County's Department of Environmental Management, the streets and/or easements rough graded to meet current standards.

(C) Use of the public water supply as a source of water for temporary construction wash racks.



(1) All subdivision and site plans shall show the location in detail for a temporary wash rack for the cleaning of trucks and construction equipment leaving the site. The means by which water is provided and the area of temporary ponding for settling of water shall be shown. The public water supply may be used to provide wash water provided the requirements as shown on the wash rack detail in Town of Vienna Construction Details are met.

(2) If the extent of the site is so limited as not to warrant a wash rack, alternate provisions for cleaning shall be shown.

#### § 12-6 Fire Marshal Data (New 2-25-80)

In accordance with Section (42) F-402.7 of the Fire Protection Code of the Town of Vienna, as adopted by the Town pursuant to Chapter 7, Article 8, Section 7-A of the Town Code:

No person shall use, tamper with, damage or destroy, any fire hydrants, valves or water mains within the Town and County except that a fire department may use such hydrants for fire fighting and training purposes, or a person who has obtained a permit for use from the public authority or utility having jurisdiction over said items. When use is by a person under permit from the authority having jurisdiction, all policies that are outlined on said permit or application shall be complied with.

No plantings or erection of other obstructions shall be made within four feet of any fire hydrant.

#### (A) Guideline Criteria

(1) All hydrant branches shall have a minimum cover of three feet at the ditch line.

(2) All fire hydrant locations shall be reviewed by the Town for conformity to the Town of Vienna Standards as shown in the Construction Details, Town of Vienna.

(3) It has been requested by the Fire Marshal's Office that all site plans submitted for review include the following information:

- a. Use group classification (defined by B.O.C.A.)
- b. Type of construction (defined by B.O.C.A.)
- c. Existing and proposed water mains
- d. Existing and proposed fire hydrants



## e. Water main size

## f. Available water pressure and flow capability

- 1) static pressure
- 2) residual pressure
- 3) flow in gallons per minute (GPM)

## g. Type of fire suppression or detection equipment to be provided: i.e., sprinklers, standpipes, smoke or heat detectors, etc.

- 1) See Article 4 and 12, 1975, B.O.C.A. Building Code and Article 10, 1975, B.O.C.A. Mechanical Code for requirements.

## h. Location and size of underground fire lines

i. Location of fire department siamese connections  
(Street in front of building)

## j. Access for emergency vehicles shall be provided to within 100 feet of the main or principal entrance to every building. The access shall be provided by a public or private street or parking lot.

## k. Twelve-foot access to within 50 feet of edge of swimming pools with 6 ft. personnel gate in fence at point of access. Exception: Pools located at single-family lots and individually owned.

## l. Height of building in feet and stories.

## m. Breakdown of building interiors such as firewalls, tenant separations, etc.

(4) If a private interior fire protection system is to be provided, it is subject to the approval of the Fairfax County Fire Marshal and the Fairfax County Plumbing Code.

(5) Private bridges must have a design satisfactory to the Director to carry fire equipment where necessary. AASHTO "Standard Specifications for Highway Bridges" and the VDH&T Bridge Engineer will be consulted for guidance on a case by case basis.

(6) Fire Flow Requirements - One and Two-Family Dwellings: Minimum Exposure Distances (with 20 psi residual pressure)

0 ft - 10 ft.	1500 gpm (a) - 2000 gpm (b)
11 ft - 30 ft.	1000 gpm (a) - 1500 gpm (b)
31 ft. and greater	1000 gpm

## a. where a single hydrant is used to meet fire demand





b. where a distribution grid is available and two hydrants within an acceptable spacing are used to meet fire demand

(7) Fire Flow Requirements for Other Uses:

- a. Townhouses and multiplex units      2500 gpm
- b. Apartments, hotels, motels, office, hospitals, nursing homes:
  - 1 - 3 stories                      2000 gpm
  - over three stories              2500 gpm
- c. Schools
- d. Mercantile, retail sales, shopping centers, etc. 2500 gpm
- e. Industrial, storage buildings repair garages, service station  
2500 gpm
- f. Central well systems

Minimum 30,000 gallons storage applies only to one-and two-family dwellings where public water is not available. See Section 1-2.1.J, Vol. 1, P.F.M. The figures in 7 above are fire flow requirements for new development. Where the size and scope of the development exceeds these requirements, additional flow shall be provided in accordance with ISO requirements. In areas where the flows required in 6 and 7 above cannot be reasonably met, the Director, in conjunction with the Fire Marshal's Office, may waive or alter such requirements. Such a waiver may be predicated upon the installation or provision of such elements as more fire retardant construction or additional fire detection as may be reasonable for the protection of life and property in a given situation.

(8) Insurance Services Office (ISO) Guide for Determination of Required Fire Flow -

- a. Determine type of construction
- b. Determine ground floor area or largest area between minimum 2-hour rated fire walls.
- c. Determine number of stories.
- d. Determine required fire flow from ISO tables available from the Division of Administrative Services, Department of Environmental

Management, 5th floor, Fairfax Building, 10555 Main St. Fairfax, Va.

(9) Fire Lanes. When buildings are more than 5 stories or 50 ft. in height, access shall be provided to both front and rear of the building. The access to the rear can be provided by either street, parking lot, or fire lane. The inner surface of the fire lane shall be no more than 15 ft. from the exterior building wall.

Where required, fire lanes shall have a minimum width of 18 ft.

Where fire lanes are required or proposed, a minimum of three sets of the approved site plan shall be submitted to the Fire Marshal by the owner or submitting engineer for the purpose of fire lane markings, types of signs and location.

Sec. 12-7      Cross Connection Control and Backflow Prevention.    New 6/15/92

There is hereby adopted by reference as if fully set forth herein Article 3 of Section 2.23 VR 355-18-006.01 et seq. of the waterworks regulations adopted by the Virginia Department of Health entitled Cross Connection Control and Backflow Prevention in waterworks except as may herein after be provided.

Sec. 12-8      Right of Entry    New 6/15/92

The Director of Public Works or his designee shall have the right to enter, at any reasonable time, property served by a connection to the Town of Vienna water system for the purpose of inspecting the piping system or systems for Cross-Connections. Upon request, the owner or occupant of property served shall furnish to the Director of Public Works pertinent information regarding the piping system or systems on such property. The refusal of such information, or refusal of access when requested, shall be deemed Prima Facie evidence of the presence of Cross-Connections.

Sec. 12-9      Failure to Comply.    New 6/15/92

The Town may deny or discontinue the water service to a consumer if the required backflow prevention device is not installed or if it is found that the device(s) has been removed or bypassed or if a Cross-Connection exists on the premises or if the pressure in the waterworks is below ten (10) PSI gauge. Water service to such premises shall not be restored until the deficiencies have been corrected or eliminated in accordance with the Commonwealth of Virginia waterworks regulation. Any person or customer found guilty of violating any of the provisions of this Article or any written order of the Town of Vienna in pursuance thereof, shall be deemed guilty of a misdemeanor and each day upon which a violation of the provisions of this act shall occur shall be deemed a separate and additional violation.



